The Calculation of Rock Analyses. — Now that so much interest centers about the chemical composition of rock magmas and the representation of their composition in terms of molecular ratios, a recent paper by Kemp[1] on the methods of calculating rock analyses in these terms will be of great use to all students of rocks. In this paper the author shows how to transform percentages into molecular proportions, and from these how to calculate the mineral composition of any given rock. The most valuable portion of the article is a series of tables in which the "molecular proportions" of each of the rock-forming oxides is indicated for its corresponding "percentage" in rock analyses.

Weathering of Granites. — The conclusions drawn by Watson[2] from the results of an interesting study of the weathering of a number of granitic rocks of Georgia are as follows: Assuming that Fe_2O_3 has remained constant, (1) the amount of water in the weathered rocks increases rapidly as decomposition advances. At the same time there is a loss of SiO_2 and of all the metallic oxides except Al_2O_2, which in some cases shows a relative increase. (2) The loss of SiO_2 is not caused by solution of the quartz of the original rocks, but is the result of the decomposition of silicates. (3) CaO and Na_2O disappeared in larger quantities than MgO and K_2O. (4) The total loss of constituents varies between 7.68 % in weathered phases to 71.82 % in thoroughly decomposed forms.

Origin of Phenocrysts in Granites. — The same author[3] has also investigated these granites with respect to the origin of their phenocrysts. He describes in detail a large number of occurrences and concludes his study in these words: "The absence of (*a*) definite arrangement or orientation among the phenocrysts; (*b*) of phenocrysts from the border zones of the massif — gradation from an interior porphyritic facies peripherally into an even granular granite of coarse texture and the same mineral and chemical composition; (*c*) the further absence of evidence of magmatic resorption or corrosion of the phenocrysts; and (*d*) the presence of abundant inclusions of all the ground-mass constituents characterizing the generally tabular phenocrysts of the Georgia porphyritic granites, fully justify the conclusion that the phenocrysts in these rocks were formed *in place*, and are not intratelluric in origin."

[1] *School of Mines Quart.*, vol. xxii, p. 75.
[2] *Bull. Geol. Soc. Amer.*, vol. xii (1901), p. 93.
[3] *Journal of Geology*, vol. ix (1901), p. 97.